ABSTRACT OF THE DISCLOSURE

A method is disclosed for operating a mobile station in a Compact packet transfer mode with discontinuously transmitting neighbor cell control channel carriers, as is a mobile station that operates in accordance with the method. The method features, when operating in a Traffic mode, and during Traffic frames, determining if the transmitter is off and, if it is, tuning a frequency source during the unused transmit timeslot for receiving a channel from a neighbor cell to make a measurement, or if the neighbor cell is on the same frequency as the serving cell frequency, making the neighbor cell measurement without retuning the frequency source. The method further features, during Traffic mode Idle frames, making at least four neighbor cell measurements per 52-multiframe. The neighbor cell control channels include a Broadcast Control Channel (BCCH) and a Compact Packet Broadcast Control Channel (CPBCCH). The frequency source may be a conventional GSM frequency synthesizer having a settling time in the range of about 500 microseconds to about 600 microseconds.

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